

BEST AVAILABLE COPY

ABSTRACT

This invention relates to flowable devices and methods of utilizing such flowable devices in wellbores to provide communicate between surface and downhole instruments, among downhole devices, establish a communication network in the wellbore, act as sensors, and act as power transfer devices. The flowable devices are adapted to move with a fluid flowing in the wellbore. The flowable device may be memory device or a device that can provide a measure of a parameter of interest or act as a power transfer device. The flowable devices are introduced into the flow of a fluid flowing in the wellbore. The fluid moves the device in the wellbore. If the device is a data exchange device, it may be channeled in a manner that enables a device in the wellbore to interact with the memory device, which may include retrieving information from the flowable device and/or recording information on the flowable device. The sensor in a flowable device can take a variety of measurement(s) in the wellbore. The flowable devices return to the surface with the returning fluid.

BEST AVAILABLE COPY

014-15383-US
May 25, 2000